008021 "hh8e2260

Commerce General Architecture

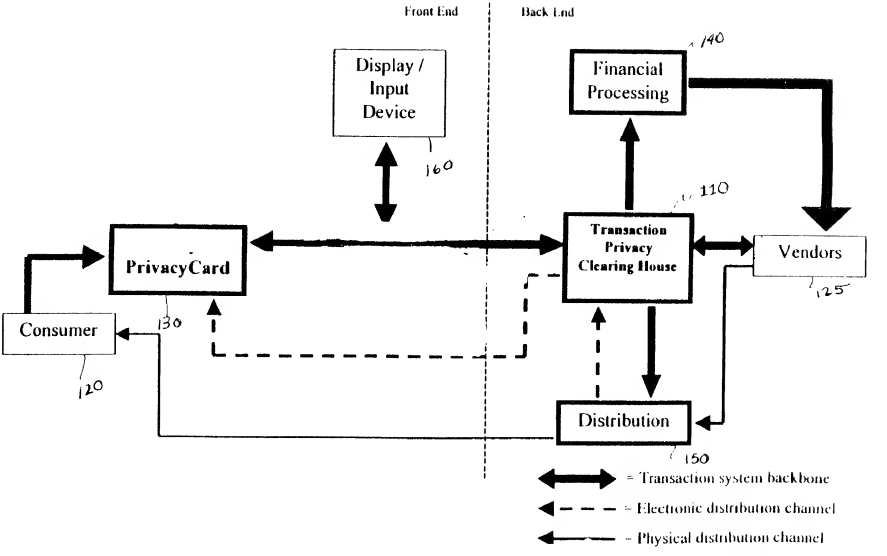


Fig 1

09723894 120200

Commerce General Architecture - POS Terminal:

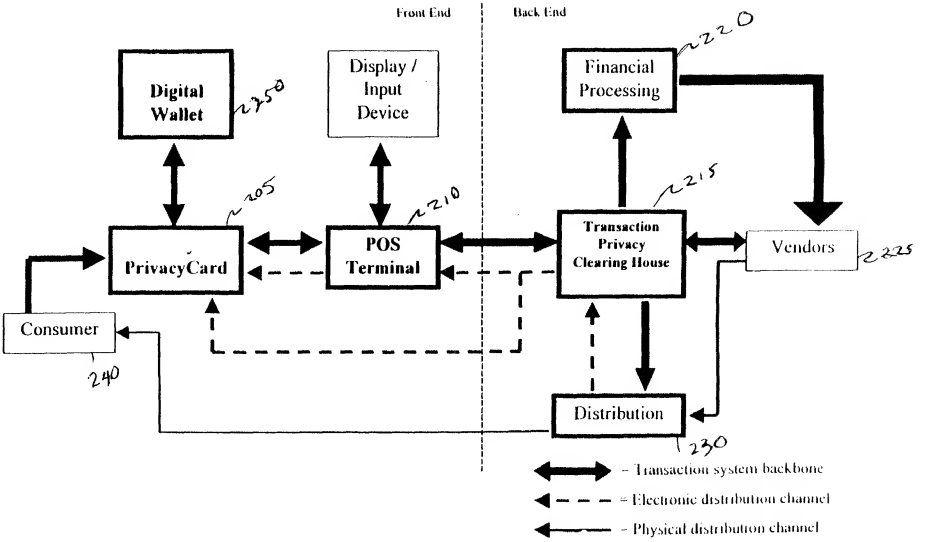


Fig 2

08802T "M822260

Commerce
In-Home Environment

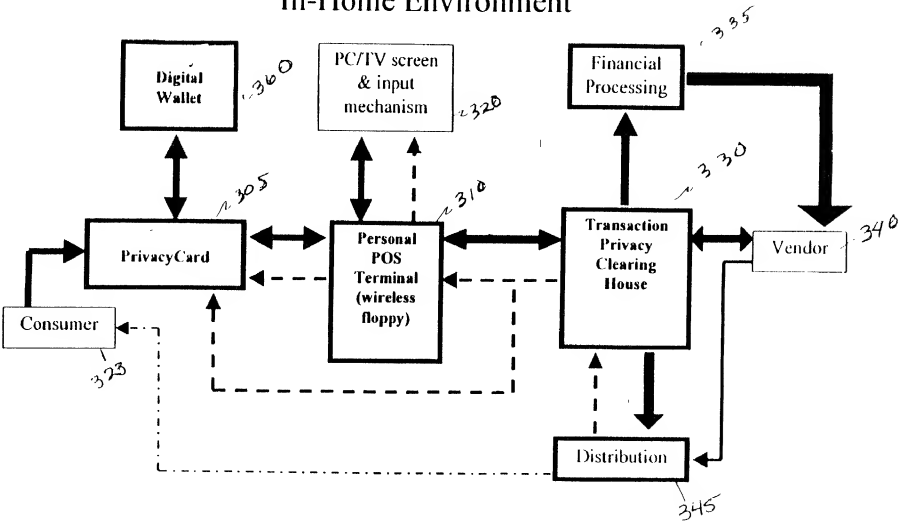


Fig 3

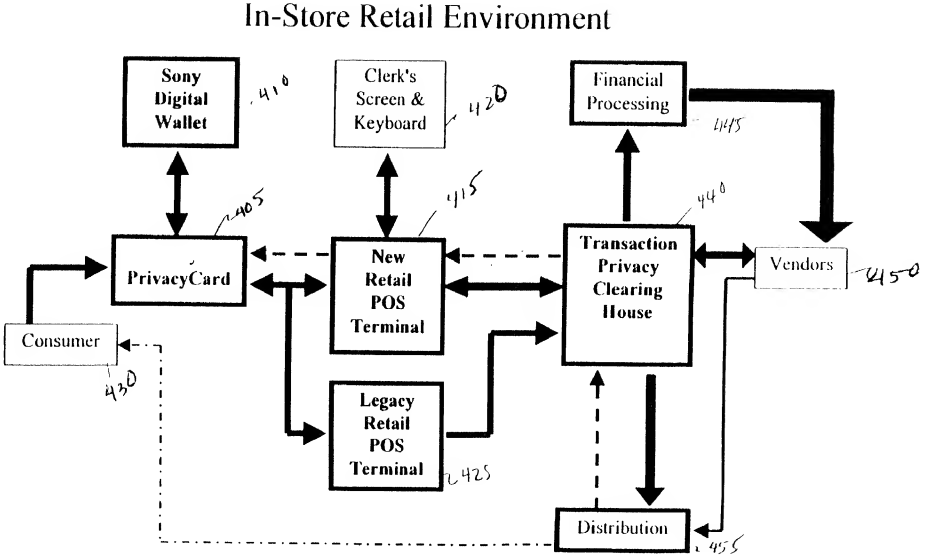

In-Store Retail Environment
Sony Digital Wallet
410
Clerk's Screen & Keyboard
420
Financial Processing
445
405
415
440
PrivacyCard
New Retail POS Terminal
Transaction Privacy Clearing House
Vendors
450
Consumer
430
Legacy Retail POS Terminal
425
Distribution
455

Fig 4

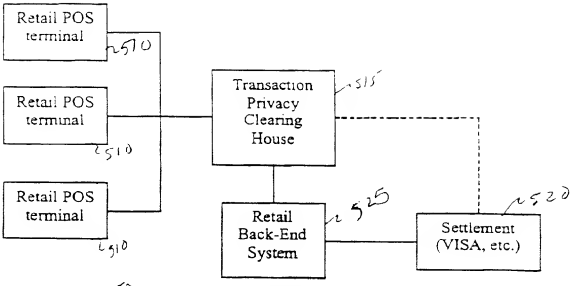


Diagram 5a: A retail system modified to support the interaction of legacy POS terminals with the Digital Wallet system

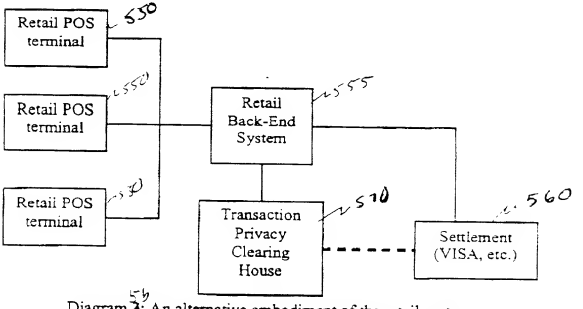
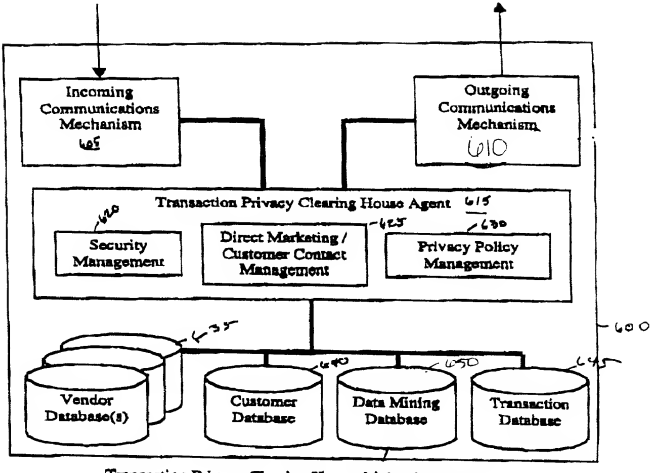


Diagram 5b: An alternative embodiment of the retail system modified to support the interaction of legacy POS terminals with the Digital Wallet system



Transaction Privacy Clearing House: Major Components

Fig. 6

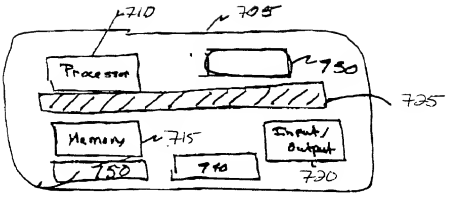


Figure 7a

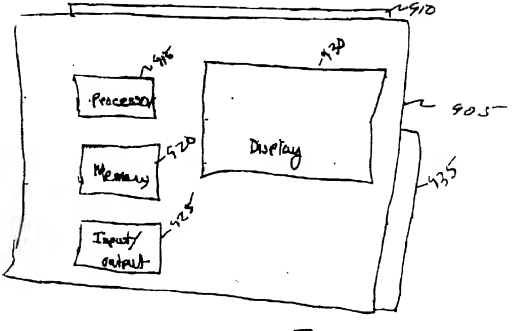


Figure 9a

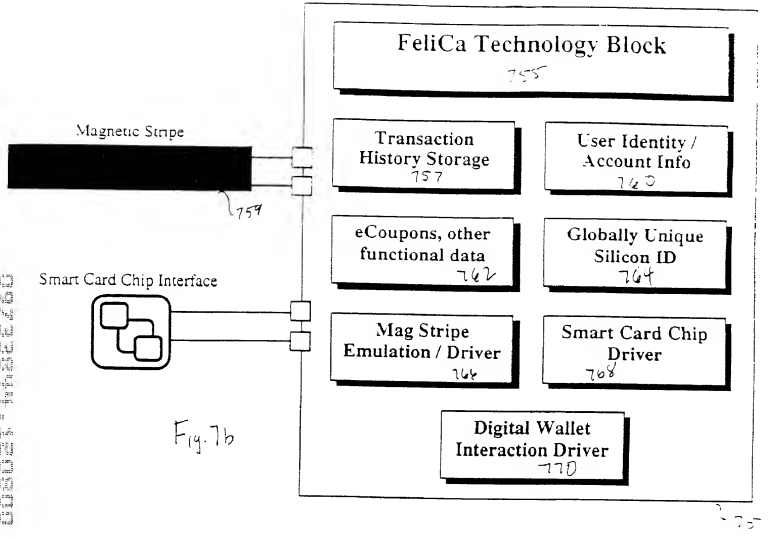

FeliCa Technology Block
755
Magnetic Stripe
759
Transaction History Storage
757
User Identity / Account Info
760
eCoupons, other functional data
762
Globally Unique Silicon ID
764
Smart Card Chip Interface
Mag Stripe Emulation / Driver
766
Smart Card Chip Driver
768
Digital Wallet Interaction Driver
770
750

Fig. 7b

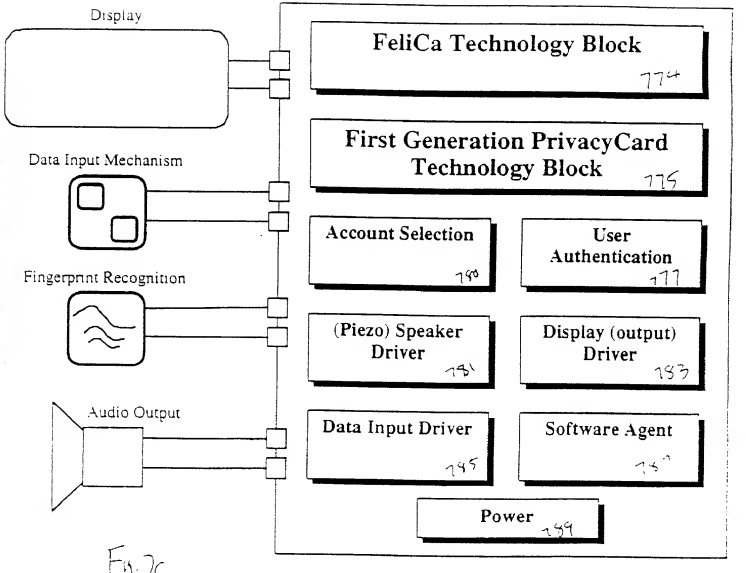

Display
Data Input Mechanism
Fingerprint Recognition
Audio Output
FeliCa Technology Block
774
First Generation PrivacyCard Technology Block
775
Account Selection
780
User Authentication
777
(Piezo) Speaker Driver
781
Display (output) Driver
783
Data Input Driver
785
Software Agent
787
Power
789

Fig. 7C

SUBSTITUTE SHEET (RULE 26)

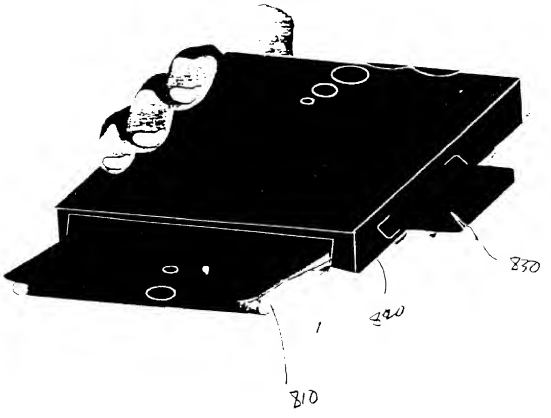


Fig 8

Digital Wallet and
Privacy Card

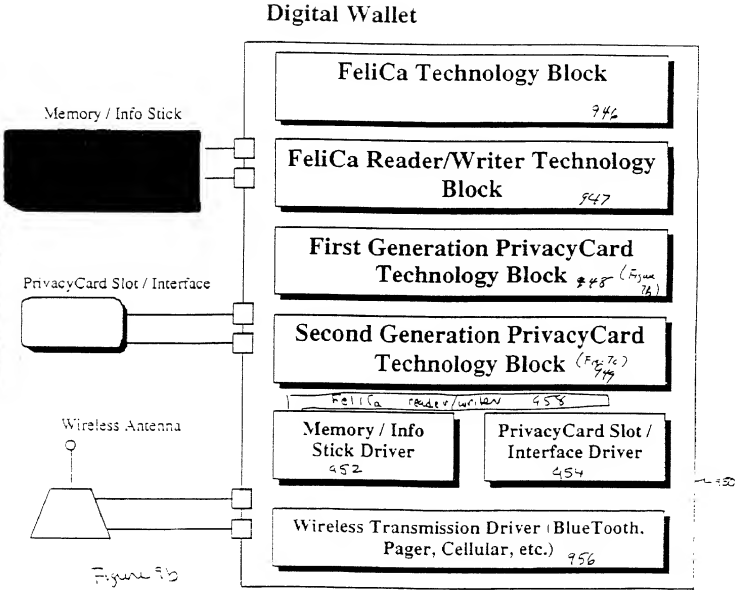

Digital Wallet
FeliCa Technology Block
946
Memory / Info Stick
FeliCa Reader/Writer Technology Block
947
First Generation PrivacyCard Technology Block
948
(Figure 7b)
PrivacyCard Slot / Interface
Second Generation PrivacyCard Technology Block
(Figure 7c)
FeliCa reader/writer 458
Wireless Antenna
Memory / Info Stick Driver
452
PrivacyCard Slot / Interface Driver
454
450
Wireless Transmission Driver (BlueTooth, Pager, Cellular, etc.)
956

Figure 9b

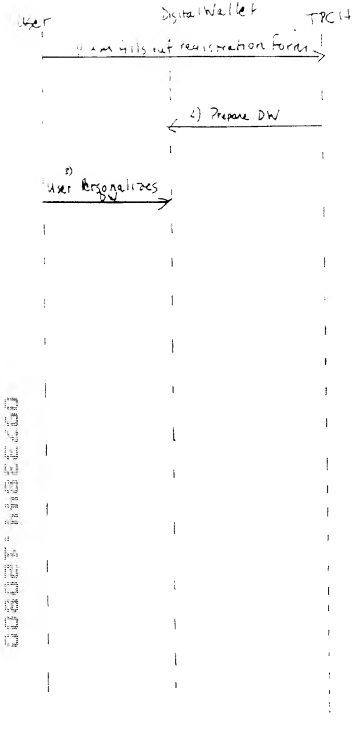


Fig 10

Setup of Digital Wallet

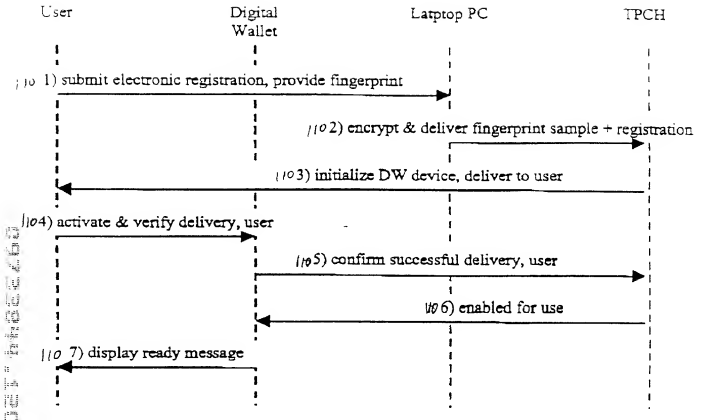


Fig 1

Digital Wallet Setup
(Alternate Embodiment)

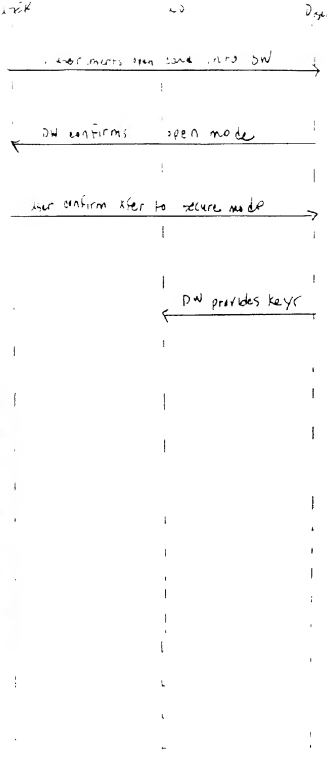
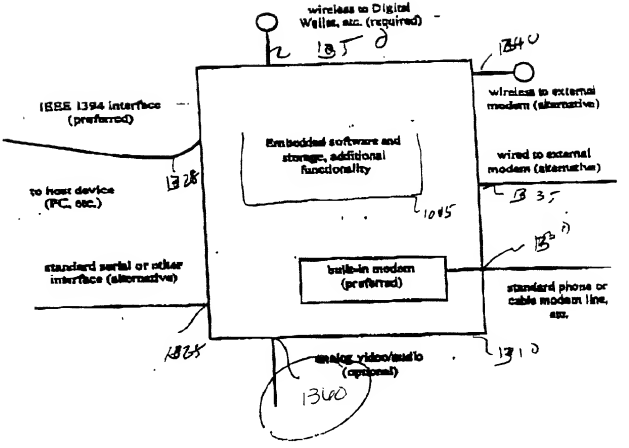


Fig 12

Conversion of card to secure



POS Terminal

Fig. 13

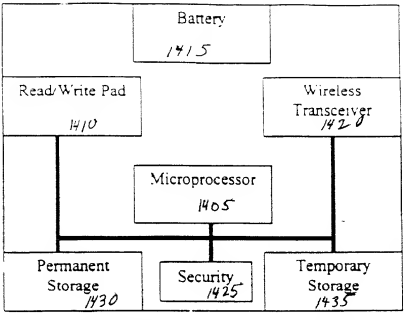


Diagram of the major components of the PersonalPOS, showing the data/address bus interconnect.

Fig 14

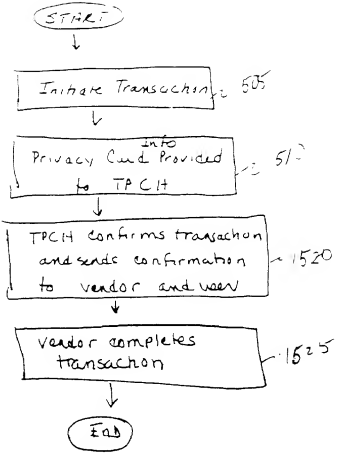

START
Initiate Transaction
505
Privacy Card Info Provided to TPCH
510
TPCH confirms transaction and sends confirmation to vendor and user
1520
Vendor completes transaction
1525
END

Fig. 5

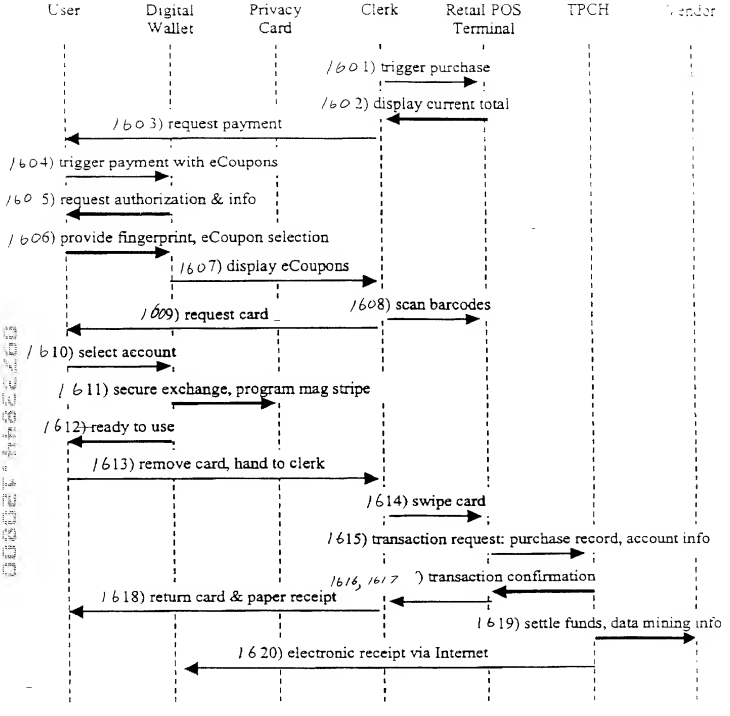


FIG 16

Retail Transaction

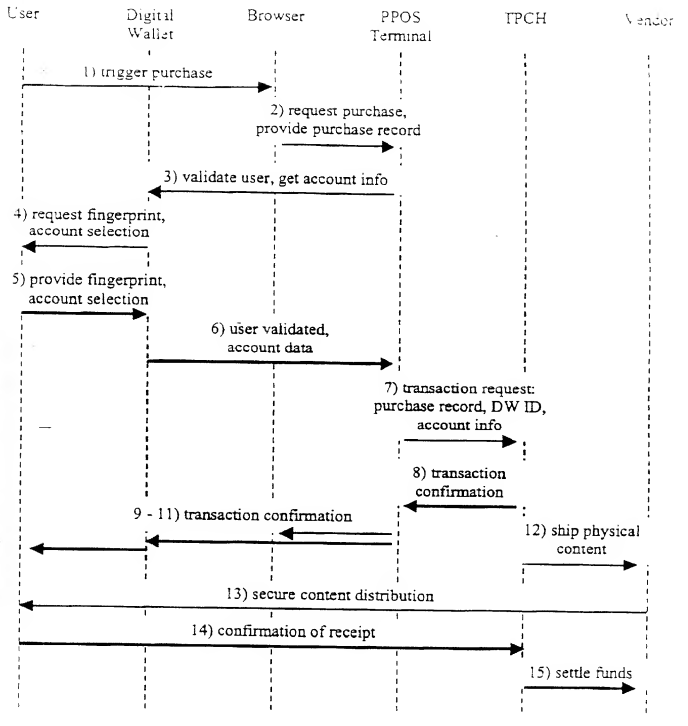


Fig. 17

Web Transaction

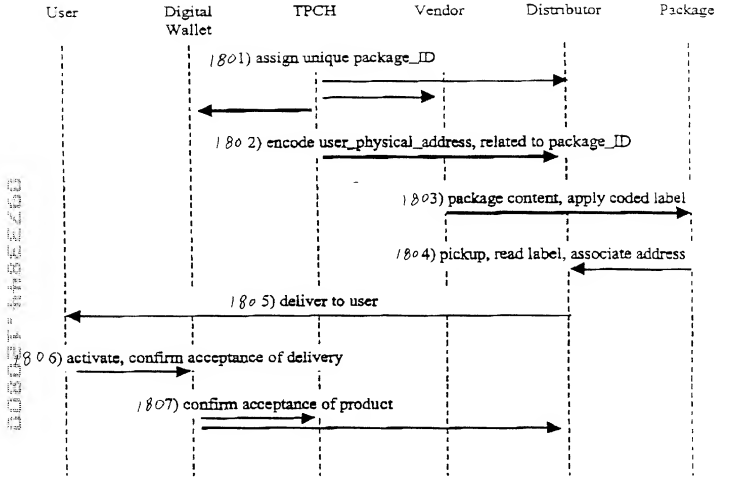
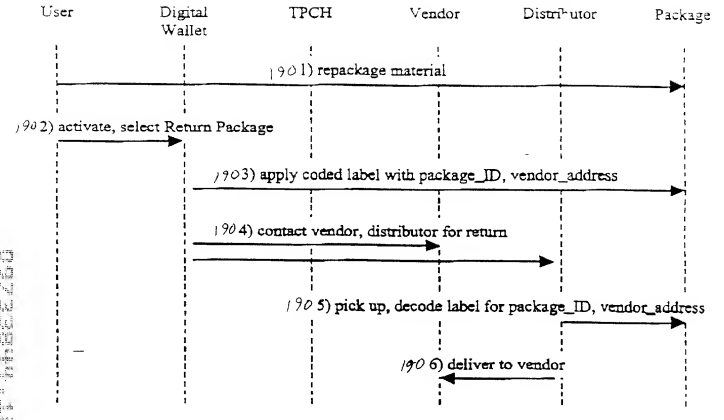


Fig. 18

Delivery of Product



UNDER PROTECTION

Return of Product

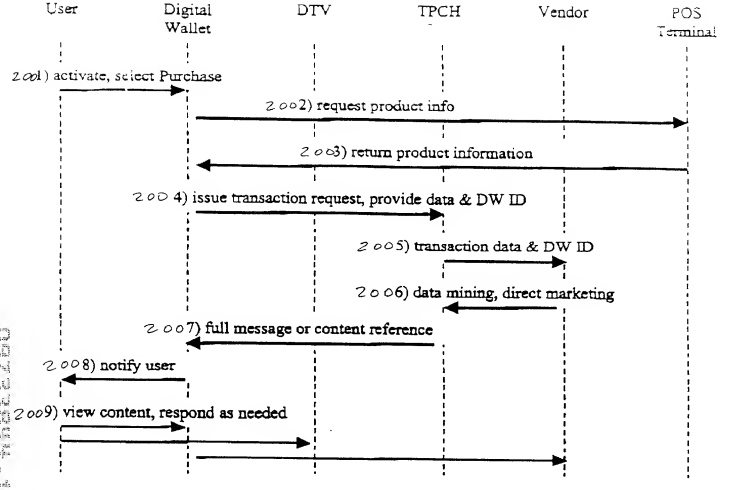


Fig 20

Data Mining

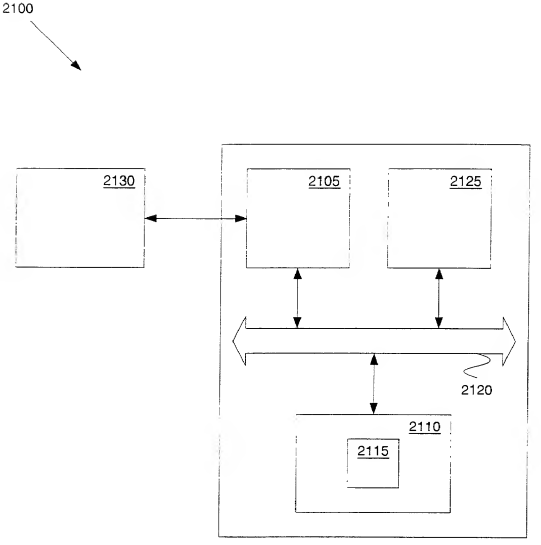


FIGURE 21

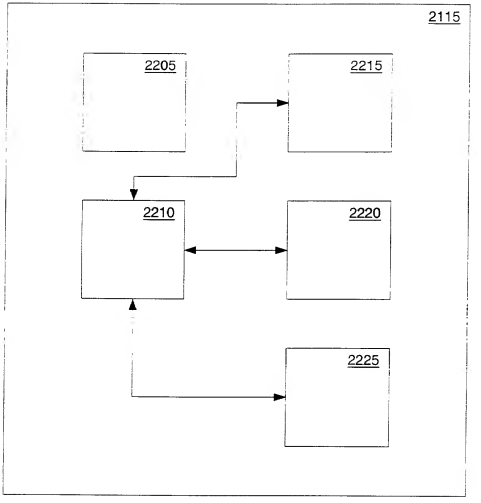


FIGURE 22

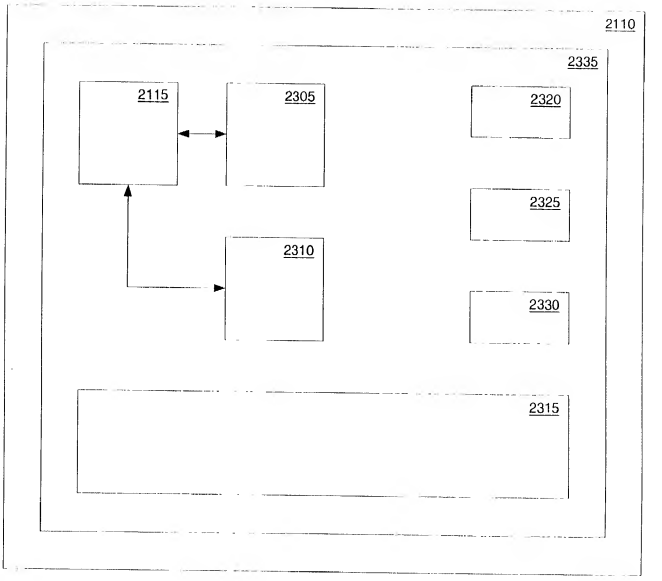


FIGURE 23

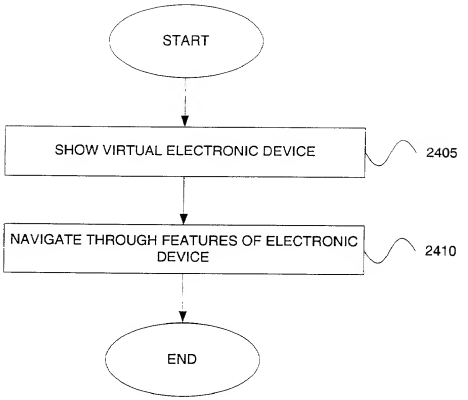

START
SHOW VIRTUAL ELECTRONIC DEVICE
2405
NAVIGATE THROUGH FEATURES OF ELECTRONIC DEVICE
2410
END

FIGURE 24

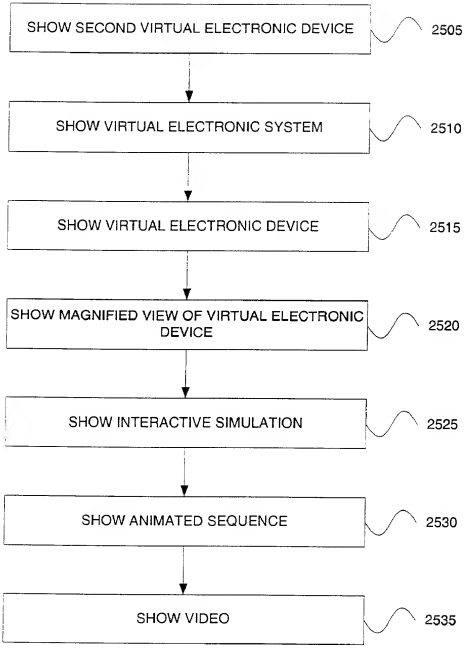

SHOW SECOND VIRTUAL ELECTRONIC DEVICE
2505
SHOW VIRTUAL ELECTRONIC SYSTEM
2510
SHOW VIRTUAL ELECTRONIC DEVICE
2515
SHOW MAGNIFIED VIEW OF VIRTUAL ELECTRONIC DEVICE
2520
SHOW INTERACTIVE SIMULATION
2525
SHOW ANIMATED SEQUENCE
2530
SHOW VIDEO
2535

FIGURE 25